E0610

US5096470 A:

(B') passing the non adsorbed fraction of CO., CH; and

(C) desorbing CO, and CH, from both stages to form

H. to the series connected second stage of the system to

carbon and zeolite mol. sieves, esp. type 5A, 10X, 13X,

zeolite mol. sieves or mordenites.

AU-A-88321/91

BRTO 05.12.90 [E.31-A1] H(2-D) J(1 E3D)

adsorbed fraction:

05.12.90-US-622872 (17.03.92) B01d-53/04 High purity hydrogen and carbon mon:oxide recovery - from hydrocarbon steam reformate by pressure swing adsorption

E36 H04 J01

Also claimed is a process comprising:

(A') passing the feed mixt, through the first stage of

a pressure swing adsorption system to separate CO as

92-113530/14

Drocess

BOC GROUP PLC

C92-052851

rich fraction:

fraction: and

separate CO. CH, and CO as adsorbed fraction, and H as non-adsorbed pure product;

*US 5096-470-A

H. and CO are produced by: (A) passing a feed mixt, comprising H2, CO, CO2 and CH4 through a pressure swing adsorption system (I) contg. a bed of adsorbent which adsorbs CO., CO and CH₁ USE/ADVANTAGE leaving H₂ as pure non-adsorbed product; (B) desorbing CO from (I) to form a CO-rich fraction; (C) desorbing CO, and CH, from (I) to form a CO.

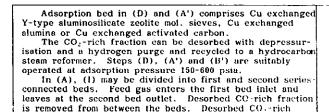
(D) passing the CO-rich fraction to a pressure swing adsorption system (II) contg. a bed of adsorbent which adsorbs CO and leaves II., CO, and CH, as non-adsorbed

(E) desorbing CO from (II) as a pure product.

a CO . rich fraction: and CO product.

(D) desorbing CO from the first stage to form a pure

Merchant grade CO and H. are obtd, from a steat. reformed hydrocarbon product by an economical process. requiring low capital costs (cf. cryosenic cethod) saving increased CO recovery. PREFERRED PROCESS Feedstream comprises up to 80 H , up to 20 CO, up to 30% CO and up to 3" CH; Adsorption bed in (A) and (B) comprises activated



fraction is removed from the first bed inlet.

(20pp945SLDwgNo0/5).

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